

Date: Wednesday, 4/4/2007 9:06:23 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SHORT STEP ASSEMBLY HIGH SKID RH  
 Job Number : 31616-1  
 Estimate Number : 10720  
 P.O. Number : N/A Part Number : D350591214  
 This Issue : 4/4/2007 S.O. No. : N/A Drawing Number : D3078 REV A  
 Prsht Rev. : NC Project Number : N/A  
 First Issue : N/A Type : LARGE FAB ASSY Drawing Revision : A  
 Previous Run : 30843 Material : N/A  
 Due Date : 4/30/2007 Qty: 8 Um: Each  
 Written By :  
 Checked & Approved By : J. Johnston  
 Comment : Est Rev:B 05.10.14 Modified step 10 KJ/EC  
 Est Rev:C 06-06-19 Added D2732-030 AS PER DSI9294  
 JLM  
 Est Rev:C 06-06-27 Revised as per DSI9340 JLM

## Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description :

1.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-214 CHG002

2.0

D2622120C

Extrusion



Comment: Qty.: 0.5000 Each(s)/Unit Total : 5.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

B30199 X1

.5 D2622-120

Extrusion

X8 31984

2x B29607

AM 07.06.20

3.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 59.75" long as per Dwg D3078

2-Drill extrusion as per Dwg D3078 using Jig DT8680 for rivets.

3-Deburr

AM 07.06.20

AM 07.06.20

AM 07.06.20

4.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

AM 07.06.20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3067-1

End Plate 331653

*Handwritten signature*  
07.06.20

10

6.0

D30631

Support



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D3063-1

Support 330292

*Handwritten signature*  
07.06.20

10

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8681, weld Fwd End Plate as per QSI 004 & Dwg D3078

A/R Aluminum Rod M102756  
M104305

3-Grind End Plate flush

*Handwritten signature* 07.06.20

*Handwritten signature*  
07.06.20

10

*Handwritten signature*  
07.06.20

10

10

8.0

QC9

VISUAL WELDING INSPECTION



*Handwritten signature*  
07.06.21

Comment: VISUAL WELDING INSPECTION

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*Handwritten signature*  
07.06.21

*Handwritten signature*  
07.06.21

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*Handwritten signature* 07.06.21

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*PE. 07-06-21*

10

12.0

D3065041

Step Leg Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3065-041

Step Leg Assy

*331794*

*PE. 07-06-21*

10

13.0

D30661

Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3066-1

Spacer

*331834*

*PE. 07-06-21*

10

14.0

MS20600AD4W4

Rivets



Comment: Qty.: 16.0000 Each(s)/Unit Total : 160.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 MS20600AD4W4

Rivet

*m104156*

*PE. 07-06-21*

10

15.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Rivet Leg Assembly as per Dwg D3078.

*PE. 07-06-21*

10

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*For 06-21 (10)*

17.0

D30671

End Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3067-1

End Plate

*331653*

*PE. 07-06-21*

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Job Number: 31616

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description:

18.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Bevel Aft end for welding

2-Inspect for foreign object as per QSI 024

3-Weld Aft End Plate as per QSI 004 & Dwg D3078  
A/R Aluminum Rod *m102756*

4-Grind End Plate flush

*pk . 07.06.21*

*pk . 07.06.21*

*pk . 07.06.21*

*a.m. pk 07.06.21*

19.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

20.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

21.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1  
Touch Up Chemical conversion

*M-h 07/06/25*

22.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING  
Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

*M 104144*

*BR / M-h 07-06-25*

23.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1  
Wing Walk as per Dwg D3078 and QSI 005 4.4

*m104733*

*EX 07/06/26*

24.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

*PK 07/06/26*

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
07-06-22	20.0	Split for an error. Qty 8 on this w/o, & 2 on split-2	2	07-06-22	2	2 07-06-22	2 07-06-22

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: 2 Date: 07/07/23  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Job Number: 31616

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1  
Pick Packing Kit

26.0

D2182B

Neoprene Cushion-.750 bl



Comment: Qty.: 0.3000 f(s)/Unit Total : 3.0000 f(s)  
Pick: Packing Kit

Qty Part Number Description Batch

2 D2182b035 Rubber Cushion B30872 ✓

27.0

D2274

Radius Block



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 D2274 Radius Block B30875 ✓

28.0

D2856400

Abrasion Strip



Comment: Qty.: 0.6000 f(s)/Unit Total : 6.0000 f(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D2856-400(7.2") Abrasion Strip B32020 ✓

29.0

D22301

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2230-1 Clamp B30992 ✓

30.0

D2732

Rubber Extrusion



Comment: Qty.: 0.5000 f(s)/Unit Total : 5.0000 f(s)

Rubber Extrusion

4 X 3"

Batch: B26472 ✓

*EP04/06/280*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Job Number: 31616

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

31.0

D22303

Mounting Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

2 D2230-3

Clamp

B30993 ✓

32.0

AN335A

Bolt



Comment: Qty.: 6.0000 Each(s)/Unit Total : 60.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 AN3-35A

Bolt

M104021 ✓

33.0

AN411A

Bolt



Comment: Qty.: 6.0000 Each(s)/Unit Total : 60.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 AN4-11A

Bolt

M102280 ✓

34.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10

Washer

M10448 (19) ✓ M104517 (112) ✓

35.0

AN960JD416

Washer



Comment: Qty.: 12.0000 Each(s)/Unit Total : 120.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

12 AN960JD416

Washer

M103691 ✓

36.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

EPA/16/28 (8) ✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: SHORT STEP ASSEMBLY HIGH SKID RH

Job Number: 31616

Part Number: D350591214

Job Number:



Seq. #:

Machine Or Operation:

Description :

2 MS21042L3

Nut (or -3)

M1036912X

37.0

MS21042L4

Nut



Comment: Qty.: 6.0000 Each(s)/Unit Total : ~~60.0000~~ Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

6 MS21042L4

Nut (or -4)

M102552X

07/06/28 (8)

38.0

AN413A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 40.0000 Each(s)

Bolt

Batch:

M104118-

07/06/28 (8)

39.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

07/06/29 (8)

07/06/29 (8)

40.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-214

Location:

PPP Rev:

07/06/29 (8)

41.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/07/03

Job Completion



07-07-03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



RELEASED  
02.09.20

DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. <b>D3078</b>	REV. A SHEET 1 OF 2
DATE <b>02.09.11</b>		TITLE <b>STEP ASSEMBLY, HI SHORT</b> SCALE NTS	
A	02.09.11	NEW ISSUE	

Part No.	Description	QTY -041	QTY -042
D3078-041	Step Assembly, High Short (LH)	X	
D3078-042	Step Assembly, High Short (RH)		X
D2622-60	STEP EXTRUSION	1	1
D3063-1	SUPPORT	1	1
D3065-041	LEG ASSEMBLY	1	1
D3066-1	SPACER	2	2
D3067-1	END PLATE	2	2
MS20600AD4W4	RIVET	16	16

**GENERAL NOTES:**

- 1) -041 SHOWN, FOR -042 INSTALL D3063-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

SHOP COPY  
RETURN TO  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. *31616*

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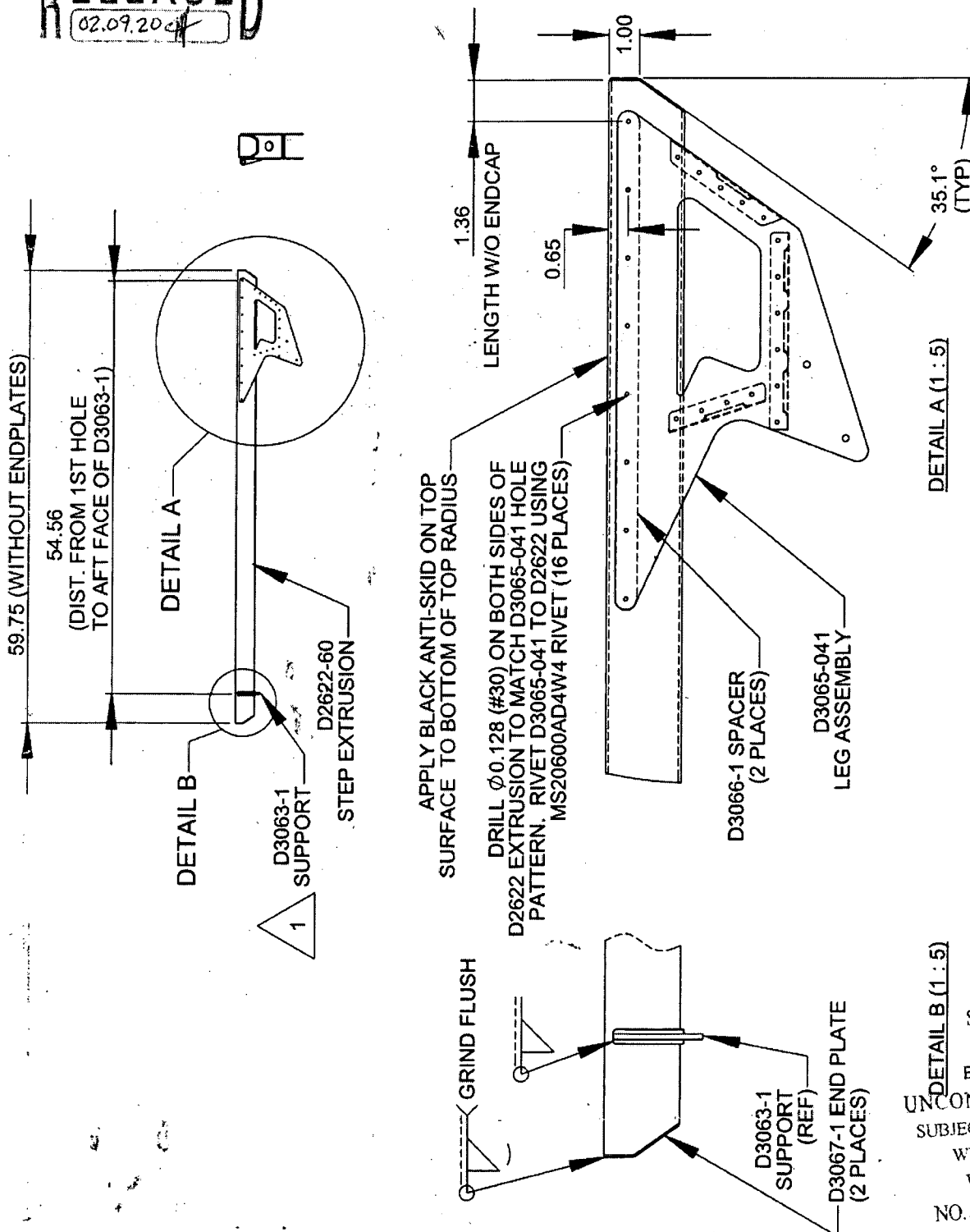






DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>CP</i>	APPROVED <i>CP</i>	DRAWING NO. <b>D3078</b>	REV. A SHEET 2 OF 2
DATE <b>02.09.11</b>		TITLE <b>STEP ASSEMBLY, HI SHORT</b>	SCALE 1:20

RELEASED  
02.09.2011



DETAIL B (1:5)  
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